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June 29, 1989



South Carolina Department of Health and Environmental Control 2600 Bull Street Columbia, SC 29201

Attention:Mr. James M. Ferguson, Director Division of Hydrogeology

Bureau of Solid and Hazardous Waste Management

Subject: Medley Farm Site Remedial Investigation

Phase IA Monitoring Well Installation

SCD 980 558 142 SEC Job No. G-8026

Dear Mr. Ferguson:

Sirrine Environmental Consultants appreciates your approval (dated June 9, 1989) for the construction of eight (8) monitoring wells at the Medley Farm site as described in the Project Operations Plan (POP) for this project approved by Region IV of the U.S. Environmental Protection Agency in their letter dated May 16, 1989. In response to comments from the State of South Carolina Department of Health and Environmental Control (SCDHEC), the locations of two saprolite wells included in the approved POP as part of saprolite/bedrock well clusters adjacent to Jones Creek, have been changed. The two revised saprolite well locations (SW-3 and SW-4) are close to the apparent boundary of the former disposal area, to the northeast and southwest respectively. Bedrock wells (BW-3 and BW-4) will be installed adjacent to Jones Creek at the two original proposed locations.

The locations agreed upon during our meeting of June 2, 1989 for the eight (8) monitoring wells which are being installed during Phase IA of the Remedial Investigation of this site are shown on the enclosed copy of Figure 5.5 from the Project Operations Plans (revised June 9, 1989). Section 5.6.2 of the POP, which describes the rationale for these locations, has also been revised and is attached for your files. No other changes have been made to the approved POP.



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All monitoring wells will be installed in accordance with procedures described in the approved POP and SCDHEC regulations R.61-71. As agreed to in the approved Work Plan the need for additional wells at this site will be determined at the completion of Phase I of the RI. This is also reflected in the approved Project Operations Plan as agreed upon with the USEPA, Region IV. Sirrine Environmental Consultants has proceeded with the installation of the Phase IA monitoring wells in accordance with the directive issued by Mr. Jon Bornholm, Superfund Project Manager for Region IV of the USEPA, in his letter of May 23, 1989.

Construction details and the latitude and longitude of each well will be submitted to SCDHEC within 30 days after completion of Phase IA well installation activities as requested.

Sincerely,

Sirrine, Environmental Consultants, Inc.

Gordon Peterson Project Manager Jim Chamness, P.G. RI Project Supervisor

cc: Mr. John Bornholm - EPA, Region IV

Mr. Les Oakes

Mr. Phillip Mancusi - Ungaro

Mr. Ted Volario

Project File

## Attachments/Enclosure:

- Figure 5.5 Proposed Locations of Groundwater Monitoring Wells
- POP Section 5.6.2 Monitoring Well Locations
- Meeting History June 2, 1989
- Monitoring Well Approval June 9, 1989

## 5.6.2 Monitoring Well Locations

The eight (8) proposed well locations are shown on the attached Figure. Well pairs will consist of a water table well screened in the saprolite (designated SW) and a deeper bedrock well (designated BW) located approximately ten (10) feet apart. The rationale for the selection of these locations is presented briefly below:

- MW-1 (SW-1 and BW-1); this well pair is approximately 400 feet northwest of suspected disposal activities, in the presumed upgradient direction. The well pair was placed between the site and Sprouse well to confirm that the private well contamination is not the result of site activities.
- MW-2 (SW-1 and BW-1); this well pair is situated within the southeast boundary of the suspected disposal area. This location was selected to enable sampling of ground water immediately downgradient of former disposal and storage areas.
- SW-3; This saprolite well location is approximately 150 feet northeast of a former lagoon location confirmed on a 1976 aerial photo of the site and less than 100 feet from suspected drum storage areas. This location is also at the head of a major draw which may have developed in response to an underlying fracture system in the parent bedrock. This well will screen for contaminants which may have migrated northeasterly in the saprolite aquifer from the site.

(Revised June 5, 1989)

- SW-4; This saprolite well location is approximately 100 to 200 feet from a suspected lagoon location to the northeast and directly south of suspected lagoon and drum storage locations to the north. This location is also approximately 25 feet due south of the existing well installed by SCDHEC. This location will screen for any potential groundwater contamination which may have migrated south and southeast from former lagoon and drum storage areas.
- BW-3 and BW-4; these locations were selected to be downgradient from former site operations, along probable fracture traces which would constitute the most likely pathways for contaminant migration from the site. The regional strike of the metasedimentary rocks present beneath the site is to the northeast and regional dip is to the southeast (Overstreet and Bell, 1965). The proposed bedrock well locations at BW-3 and BW-4 are, according to this data, downdip. Both locations are immediately adjacent to Jones Creek which follows the most prominent regional lineament trend, northeast-southwest. This trend is locally manifested by erosional features 1/3 mile or greater in length. Two prominent intermittent drainage gullies located immediately northeast and southwest of the Medley Farm site follows a less prominent northwest-southeast lineament trend. The orientations and locations of these drainage features have likely developed in response to prominent fractures present in the underlying bedrock. BW-3 is located approximately 200 to 300 feet south of the confluence of the intermittent drainage

gully located northeast of the site to screen for any contaminants which may have migrated along fractures beneath this gully and/or directly southeast to Jones Creek. BW-4 is located at the confluence of the intermittent drainage gully located southwest of the site to screen for contaminants which may have migrated along this gully toward Jones Creek or directly south along Jones Creek after migrating southeasterly to fractures associated with Jones Creek.